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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,538	11/19/2003	Yuji Sekiguchi	60188-711	5586

7590 11/08/2004

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EXAMINER

LAM, TUAN THIEU

ART UNIT PAPER NUMBER

2816

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,538

Applicant(s)

SEKIGUCHI ET AL.

Examiner

Tuan T. Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/19/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 16 should be designated by a legend such as!--Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the recitation of "a delay selecting section for delaying the output data with a plurality of delay amounts respectively, generating a plurality of delayed output data pieces, and selecting and outputting one of the delayed output data pieces" is indefinite because it is misdescriptive of the present invention. As shown in figure 1, also discussed in the specification page 12, lines 11-17, the delay selecting section is the section 105. The delay selecting section receives and delays the latch pulse signal s104c through a series of delay circuits (1051-105n) generating a plurality of delayed pulse signals. One of the plurality of delayed pulses signals is

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selected and outputted by the selection part 105. Thus, the delay selecting section clearly selects and outputs one of the plurality delayed pulse signal. The delay selecting section does not generate a plurality of delayed output data pieces, and select and output one of the delayed output data pieces as recited. Clarification and/or correction are required.

Further, the recitation of “latch circuit for receiving the delayed output data piece selected by the delay selecting section and a latch pulse signal” is indefinite because it is misdescriptive. As shown in figure 1, the latch circuit is seen to be the latch circuit 106. This limitation is evidently further defined in claims 13, 14, 15 and 17. The latch circuit 106 receives data pieces from the memory 100 and the selected one of the delayed pulse signal. The latch circuit then latches the data pieces in response to the selected delayed pulse signal. Thus, the latch circuit does not receive the delayed output data piece selected by the delay selecting section and a latch pulse signal as recited.

In claims 5-7, the recitation of “if” in line 1 is indefinite because it is not a positive recitation. It is suggested to change “if” to --when--.

In claim 10, the recitation of “the latch circuit is provided in a second LSI” is indefinite because it is misdescriptive. As noted above, the latch circuit 106 is not provide in a second LSI as recited. Correction is required.

In claim 11, the recitation of “the first LSI” in line 2 lacks proper antecedent when depending on claim 9. The recitation of “the memory” in line 2 lacks proper antecedent basis when depending on claim 10. Correction is required.

In claims 15 and 17, the recitation of “the latch circuit latches the output data at rising and falling edges of the latch pulse signal” is indefinite because it is misdescriptive. As noted

above, the latch circuit 106 latches data pieces from the memory in response **the selected delayed of the latch pulse signal.**

Claims 1-4, 8-9, 12-14, 16 and 18-24 are indefinite because of the technical deficiencies of claim 1.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Henderson et al. (USP 5,022,056). Figure 1 shows a delay selecting section (103-103-n) for delaying the output data (101) with a plurality of delay amounts, respectively, generating a plurality of delayed output data pieces (output of delay line), and selecting and outputting one of the delayed output data pieces (delayed data), a latch circuit (111) for receiving the delayed output data piece selected by the delay selecting section and a latch pulse signal (102), and latching the delayed output data piece at a time of receiving the latch pulse signal, a delay control section (107) for controlling the delay selecting section such that one of the delayed output data pieces with a delay amount different from that of the preceding delayed output data pieces is selected by the delay selecting section and the current delayed output data piece is input to the latch circuit every time the latch pulse signal is input to the latch circuit as called for in claim 1.

Regarding claim 2, the plurality of delay circuits connected in series are seen as delay circuit 103-1 to 103-N.

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Regarding claim 9, the latch circuit 111 of Henderson et al. is capable of receiving data (101) from a memory.

Regarding claim 10, the latch circuit 111 is a RAM¹ or FIFO which is apparently on a different LSI than the LSI outputting the data output. Therefore, the limitation of claim 10 is fully met.

Regarding claim 11, figure 5 show a clock signal is to be inputted to the delay selecting section.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson et al. (USP 5,022, 056) in view of Kennedy et al. (US 2003/0062936). Figure 1 shows a delay selecting section (103-103-n) for delaying the output data (101) with a plurality of delay amounts, respectively, generating a plurality of delayed output data pieces (output of delay line), and selecting and outputting one of the delayed output data pieces (delayed data), a latch circuit (111) for receiving the delayed output data piece selected by the delay selecting section and a latch pulse signal (102), and latching the delayed output data piece at a time of receiving the latch pulse signal, a delay control section (107) for controlling the delay selecting section such that one of the delayed output data pieces with a delay amount different from that of the preceding delayed output data pieces is selected by the delay selecting section and the current

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delayed output data piece is input to the latch circuit every time the latch pulse signal is input to the latch circuit. Henderson et al. does not show the delay selecting section as a DLL as called for in claim 3. Kennedy et al. teaches that DLL provides a plurality of delay signals with minimal jitter. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to replace Henderson et al.'s delay circuit with Kennedy's minimal jitter DLL circuit for the purpose of providing stable signals thus reduces erroneous operation.

Allowable Subject Matter

8. Claims 4-8 and 12-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

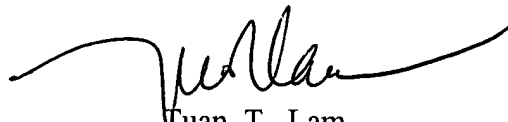
9. The following is a statement of reasons for the indication of allowable subject matter: Henderson et al. fails to teach or fairly suggest a comparison circuit and a determination section as called for in claim 4.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Lam whose telephone number is 571-272-1744. The examiner can normally be reached on Monday to Friday (7:30 am to 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY P CALLAHAN can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Tuan T. Lam', with a long horizontal flourish extending to the right.

Tuan T. Lam
Primary Examiner
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10/31/2004